



# Minnesota Ag News – Chemical Use

## Vegetables: 2020



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### Green Peas, Chemical Use – Minnesota: 2020

[Includes acreage for fresh market and processing.]

Active ingredient	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	(percent)	(number)	(pounds per acre)		(pounds)
<b>Herbicides</b>					
Clomazone .....	3	1.0	0.386	0.386	700
Imazethapyr .....	24	1.0	0.046	0.046	600
Imazethapyr, ammon .....	8	1.0	0.048	0.048	200
MCPB .....	3	1.0	0.394	0.394	600
Pendimethalin .....	68	1.0	0.803	0.803	29,000
Saflufenacil .....	46	1.0	0.016	0.016	400
S-Metolachlor .....	8	1.0	1.173	1.173	5,300
<b>Total herbicides</b> <sup>1</sup> .....	<b>92</b>				<b>60,900</b>

<sup>1</sup> Total Fungicide, Herbicide, and Insecticide includes pesticides that are not listed in this table.

### Sweet Corn, Chemical Use – Minnesota: 2020

[Includes acreage for fresh market and processing.]

Active ingredient	Area applied	Applications	Rate per application	Rate per crop year	Total applied
	(percent)	(number)	(pounds per acre)		(pounds)
<b>Fungicides</b>					
Azoxystrobin .....	48	1.0	0.107	0.113	5,600
Propiconazole .....	54	1.1	0.096	0.103	5,800
<b>Total fungicides</b> <sup>1</sup> .....	<b>54</b>				<b>11,300</b>
<b>Herbicides</b>					
Acetochlor .....	28	1.0	1.271	1.271	37,600
Atrazine .....	66	1.2	0.526	0.627	43,100
Bicyclopyrone .....	8	1.0	0.038	0.038	300
Carfentrazone-ethyl .....	2	1.0	0.029	0.029	100
Clopyralid mono salt .....	5	1.0	0.126	0.126	600
Dimethenamid-P .....	22	1.0	0.704	0.704	16,300
Glyphosate pot. salt .....	2	1.0	1.021	1.021	2,500
Mesotrione .....	13	1.0	0.130	0.130	1,700
Saflufenacil .....	5	1.0	0.056	0.056	300
S-Metolachlor .....	26	1.0	1.561	1.561	42,100
Tembotrione .....	61	1.0	0.080	0.080	5,100
Topramezone .....	5	1.0	0.015	0.015	100
<b>Total herbicides</b> <sup>1</sup> .....	<b>97</b>				<b>154,400</b>
<b>Insecticides</b>					
Bifenthrin .....	89	2.3	0.047	0.111	10,200
Lambda-cyhalothrin .....	31	2.2	0.028	0.062	2,000
<b>Total insecticides</b> <sup>1</sup> .....	<b>92</b>				<b>12,700</b>

<sup>1</sup> Total Fungicide, Herbicide, and Insecticide includes pesticides that are not listed in this table.

**Vegetables, All, Pest Management Practices – Minnesota and Program States: 2018 and 2020**

	Minnesota		Program States <sup>1</sup>	
	2018	2020	2018	2020
	----- (percent of operations) -----			
<b>Avoidance Practices</b>				
Crop or plant variety chosen for specific pest resistance.....	9	9	37	69
Planting locations planned to avoid cross infestation of pests.....	9	7	32	55
Planting or harvesting dates adjusted.....	6	1	18	64
Rotated crops during past 3 years.....	80	84	80	91
Row spacing, plant density, or row directions adjusted.....	3	2	22	39
<b>Monitoring Practices</b>				
Diagnostic laboratory services used for pest detection via soil or plant tissue analysis.....	(Z)	16	16	2
Field mapping data used to assist decisions.....	21	35	13	3
Scouted.....				
-established process used.....	47	42	28	5
-for pests due to a pest advisory warning.....	7	3	12	3
-for pests due to a pest development model.....	21	24	13	3
-for pests or beneficial organism by conducting general observations while performing routine tasks.....	16	12	25	7
-for pests or beneficial organism by deliberately going to the crop acres or growing areas.....	83	86	72	86
Scouted for diseases.....	98	87	95	64
-by employee.....	0	0	3	45
-by farm supply company or chemical dealer.....	1	2	4	1
-by independent crop consultant or commercial scout.....	1	(Z)	5	2
-by operator, partner, or family member.....	4	9	73	48
-by other.....	2	2	(Z)	1
-by processor.....	95	86	14	3
Scouted for insects & mites.....	99	88	96	64
-by employee.....	0	0	3	45
-by farm supply company or chemical dealer.....	1	3	4	1
-by independent crop consultant or commercial scout.....	1	(Z)	5	2
-by operator, partner, or family member.....	4	9	73	48
-by other.....	2	2	(Z)	1
-by processor.....	95	86	14	3
Scouted for weeds.....	97	96	95	53
-by employee.....	(Z)	1	4	55
-by farm supply company or chemical dealer.....	9	18	4	2
-by independent crop consultant or commercial scout.....	1	3	4	2
-by operator, partner, employee, or family member.....	35	58	78	39
-by other.....	1	1	(Z)	1
-by processor.....	55	20	9	2
Weather data used to assist decisions.....	74	78	68	31
Written or electronic records kept to track pest activity.....	57	57	35	7
<b>Prevention Practices</b>				
Crop acres cultivated for weed control.....	5	9	65	55
Equipment & implements cleaned after field work to reduce spread of pests.....	67	80	70	42
Field edges, ditches, or fence lines were chopped, sprayed, mowed, plowed, or burned.....	47	61	61	30
No-till or minimum till used.....	30	37	27	66
Plowed down crop residue using conventional tillage.....	39	37	73	59
Water management practices used.....	8	63	34	81
<b>Suppression Practices</b>				
Beneficial organisms applied or released.....	0	0	6	2
Biological pesticides applied.....	1	1	9	11
Floral lures, attractants, repellants, pheromone traps, or biological pest controls used.....	1	1	8	30
Ground covers, mulches, or other physical barriers maintained.....	24	16	44	70
Pesticides with different mechanisms of actions to keep pest from becoming resistant to pesticides.....	23	43	29	11
Scouting data compared to published information to assist decisions.....	22	25	21	6
Trap crop grown to manage insects.....	0	0	5	29

(Z) Less than half the rounding unit.

<sup>1</sup> The 18 program states in the Vegetable Chemical Use Survey were Arizona, California, Florida, Georgia, Illinois, Indiana, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Texas, Washington, and Wisconsin.